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May 23, 2014

T.D.E.C: Division of Water Resources
Re: U.S. Nitrogen Permits
William Snodgrass Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville TN 37243

To the Division of Water Resources - Tennessee:
Re: Water Permit #TN081566 File #NRS13.205

Government; county, state, federal serve the public, in the case of U.S. Nitrogen L.L.C.'s proposed development near the community of Midway, Tennessee the Green County commission appear to have seen an opportunity of enhanced revenue and money. Their concern of the environment seems a small priority if at all? I understand the importance of aqueous ammonium nitrate solution for fertilizer but have less concern with a shortage of the ingredient for explosives.

The Tennessee Department of Environment and Conservation (TDEC) has the primacy as authorized by state and federal agencies to assure that waters, air and soil of the state are not negatively impacted. In the case of U.S. Nitrogen the company first intended to draw a large quantity of water (1.45 million gal/day – reports vary) from Lick Creek in Green County and discharge the used water, used in the nitrogen fixation process, into the Mosheim city waste water treatment plant, which then would discharge the treated water into Lick Creek. U.S. Nitrogen a short time later determined that the large volume of used water for the process would over burden the cities wastewater treatment facility so U.S. Nitrogen decided to have water intake from Lick Creek with outfall of wastewater directly into Lick Creek. In a short span of time U.S. Nitrogen once again determined that Lick Creek was inadequate and modified their request to TDEC to install two buried pipelines (10 inch intake – 15 inch outfall) along county managed roads crossing other creek drainages with perennial and intermittent waters and then draw water directly from the Nolichucky River (@ 11 miles via pipeline) with their discharge water out-falling at the same point location as the intake and in close proximity to the Conway Bridge (river mile 20.8) listed on the National Register of Historic Places.

TDEC's evaluation of U.S. Nitrogen's water permit should be cautioned since this industrial operation seems uncertain of water need or method of water disposal. I have great concern with this permit request and ask the Tennessee Division of Water Resources to **deny the permit** for the following reasons. Be aware that I am additionally alarmed not only by the water use and water discharge but a myriad of other environmental and social concerns that are cumulative in nature and should be combined in an inclusive analysis as in an Environmental Impact Statement (EIS) since many of the issues are of national concern and are under federal responsibility. An EIS would also assure that the legal requirement of Environmental Justice be analyzed and does not burden a minority public.

The large quantity of water requested in the permit is huge and detrimental to the river; use will limit flow during droughts when it is highly necessary for agriculture and it will alter the ecology of the river, I anticipate it will impact not only the aquatic life of the river but aquatic organisms that are federally listed as endangered. As I read the permit request and other analytical reports on the proposal I cannot locate any thermal change of the water discharge from the ambient water temperature of the river, nitrate loads or any other water contaminants are not clear and is a primary fear. Water contaminated with nutrients can cause algal blooms followed by algal die off and change in water oxygen availability to aquatic species. The only statement easily seen in my review associated with water quality at discharge was that the water outfall would be similar to the Mosheim city waste water treatment plant outfall which have a national permit via the National Pollution Elimination Discharge System (NPEDS) and which will also be required by U.S. Nitrogen. I suggest that a complete and easy to understand report be offered to the public to assure that wastewater has zero impact to the natural system, agriculture and the public. Waters of the Nolichucky River and Lick Creek each are impaired and are listed on Tennessee's 303(d) list of impaired waterways. Adding additional wastewaters to the already impaired waters will only degrade the system more. The farming community near the use area is obviously opposed to U.S. Nitrogen's use of the water and their concern can be easily seen in the hundreds of "Save Our River" signs and public protest meetings associated with the development in a multi-county area. Residents appear concerned about water shortage, contaminated culinary water at home water wells, livestock contamination, water contamination of agricultural products and more.

Besides the above mentioned concerns of water use, water discharge, endangered species and local public fears. The plant operations will produce a huge volume of Green House Gas emissions (188,000 tons per year CO2), methane (10,000 tons per year) as well has other air pollutants and green house gases. The large quantity of natural gas that will be required for a 130 million btu's heating of the nitrogen fixation process will include additional air polluting concerns and green house gas emissions in the acquisition and transportation of hydrocarbon used in the heating operation.

I ask that the water permit identified by TN081566 be denied. That if U.S. Nitrogen L.L.C is intent on developing such a large facility to produce nitric acid, ammonia and liquid ammonium nitrate that they make a more inclusive analysis, truly involve the public and assure all concerned that there will be **Zero impact** to the environment of water, air, soil and health. The large amount of money generated by this operation is predominantly entering the hands of corporations and the local citizens will receive relatively little in comparison.

With Respect,

Stan Olmstead
Natural Resource Advocate